



The best practices for the future

by **Dave Biggs**

*Sr. Vice President Operations/Product Development
Bently Nevada Corporation*

Today's business world is completely different from what it was in the past. Global competition in the petrochemical industry, and changing regulations in the power generation industry, have changed the rules. Individuals and companies are learning these new rules, so they can control their destinies. Bently Nevada is also learning new rules.

One rule is, "Knowledge is the key to success and a high standard of living." Knowledge provides value to you, as a customer; as a vendor, it distinguishes you from your competition. "Knowledge tools," which help guide you through complex decisions, are now essential to smart business management. At Bently Nevada, we realize that we must understand the processes, equipment and protocols that you use; then, we must build the knowledge tools that give you a competitive edge.

Our products have always provided useful information. Now, we have begun to embed knowledge tools into our systems. Engineer Assist™, our expert system for turbomachinery, automatically analyzes your machinery, then presents you with clear options. Of course, most decisions are based on information from many different sources. Most companies cannot create bridges between information sources. Therefore, the products that give you the most value work in harmony with other companies' products.

The challenge

Specialization is another rule of business; the cost and complexity of technology drives it. No single company has

expertise in every field, or equipment for every application. Some have in-depth experience in Distributed Control Systems, others in Programmable Logic Controllers. Likewise, some companies specialize in oil analysis, corrosion monitoring, or process trending and archiving. Bently Nevada is the world's foremost specialist in protecting and managing machinery.

We understand that your business problems are usually best solved by using products from several vendors. That is why we view other vendors as potential allies. Companies that work in isolation cannot give their customers the same value as can companies which work together.

The solution

Bently Nevada doesn't operate in isolation from others. We want our products to make a strong contribution to your overall success; therefore, we work hard to make our products conform with others you use. A good example is our new 3500 Machinery Monitoring System.

The 3500 Machinery Monitoring System is our newest, most advanced monitoring system. We involved our customers and other companies in its design, because we wanted the 3500 to integrate with the systems that most of our customers use. That is why the 3500 uses common control system input and output devices. It is also the reason it has built-in digital communication, which reduces wiring and installation costs while providing more information. Because it uses control system devices and has digital communication, we were able to eliminate panel switches and meters, which reduced the 3500 Monitoring System's cost.

Our software products are also designed to work with other vendors'

products. This flexibility lets you use our software with other software packages, so you can manage large amounts of machine information quickly, and use knowledge tools that make efficient machine management possible. Our new software products operate under the Windows NT Operating System, which makes concurrent program execution and bi-directional information exchange possible. We are developing software that imports process data from existing control and information systems, to give you a much richer understanding of machinery condition and behavior. Our product integration makes more information available and improves knowledge tools: It sets the stage for the future's best practices.

Best practices for the future

We have learned from our customers while troubleshooting their machine problems. This field experience, and the machinery behavior research performed by our subsidiary, Bently Rotor Dynamics Research Corporation, have helped us set goals for developing machinery management tools.

One of our immediate goals is to reduce the time required to obtain the information needed to make decisions. Currently, it can take hours to combine machine and process information into a useful format. We already have taken steps to reduce that time to minutes. Another of our goals is to develop knowledge tools, such as Engineer Assist™, that will help you to determine which machine conditions are important to investigate and which are not. Currently, it can take days to sort through the data that a diagnostic system can produce. While "expert system" tools are not sophisticated enough to replace human decision-making, they can speed the process immensely.

In the long term, our goal is to develop knowledge tools that combine the knowledge you have of your machines and processes with our wider knowledge of machinery behavior. The accumulated knowledge will make possible "just-in-time" learning and quick decision making. In the future, knowledge will be your competitive edge. ■